

Syllabus:

Instructors: Simon Lesina-Debiasi slesina@mit.edu & Paul Pettigrew paulpett@mit.edu

Teaching Assistant: Aisha Cheea aishac@mit.edu

Schedule: MW 2:00 p.m. - 5:00 p.m. Room N52-337

Units: 3-3-6 HASS-A

Prerequisites: None

Class Overview:

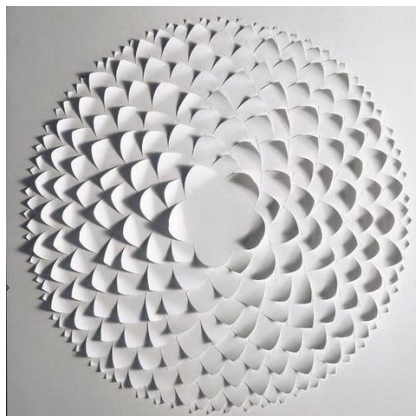
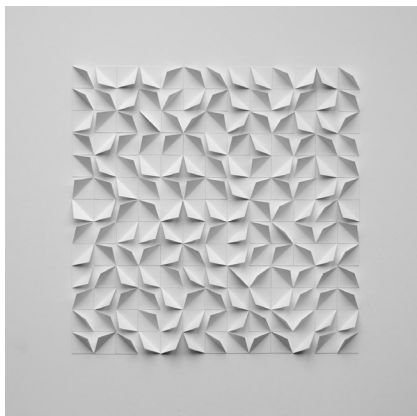
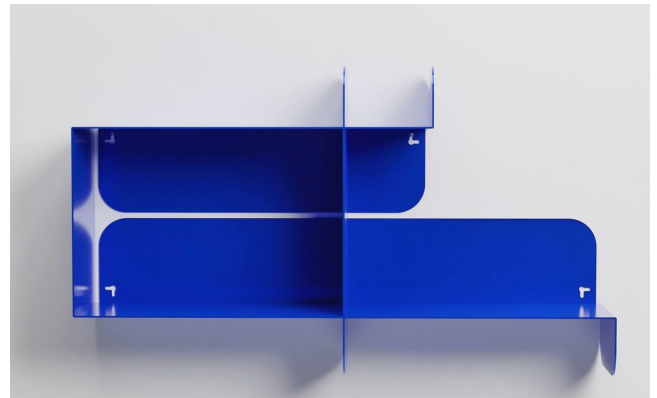
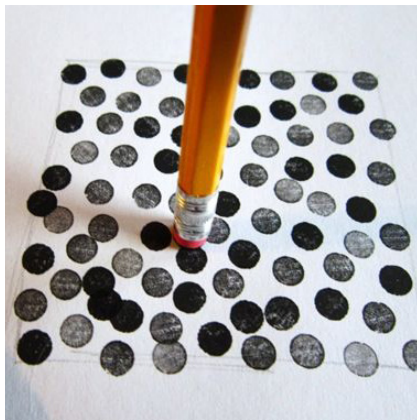
4.021 How to Design introduces fundamental design principles as a way of demystifying design and providing a basic introduction to all aspects of the design process. Through lectures and exercises, students will develop skills of creativity, abstract thinking, representation, iteration, and design development. 4.021 is an introductory class intended for students without a design background, geared towards enabling more effective collaboration with designers, and the ability to apply foundational principles of design to any discipline. Limited to 25; preference to Course 4 and 4B majors/minors, first and second-year students.

The Design Process:

Each week the class will explore aspects of the design process from context to concepts, drawing, making, iterating, building a narrative and finally presenting. This path exemplifies a traditional design process where a designer starts with an idea and works through testing, expanding, refining, and eventually realizing their idea for review and evaluation. Through weekly topics and assignments, students will develop a variety of design skills relating to each stage of the design path.

Learning Objectives:

The course consists of 3/6 exercises exploring various topics through concepts, drawings and physical fabrication. Students should be able to engage with an increasing level of design research, through iterative studies, and move fluidly between different modes and scales of operation. Conventions of design representation and communication through drawing and modeling will be explored. Students will need to demonstrate basic applications of design skills, understanding of conventions, and an ability to sustain an increasing level of research during the exercises throughout the semester.



Exercises 1a: *Found Object Pattern Drawing*

"A pair of socks is no less suitable to make a painting with than wood, nails, turpentine, oil and fabric." Robert Rauschenberg, *Art of the 20th Century Part 1*, 2000

"In conceptual art the idea or concept is the most important aspect of the work. When an artist uses a conceptual form of art, it means that all of the planning and decisions are made beforehand and the execution is a perfunctory affair. The idea becomes a machine that makes the art." Sol Lewitt, *Art Forum*, June 1967

"When a man makes a poem, makes it, mind you, he takes words as he finds them interrelated about him in nature, or as he chooses to set them down, and he sets them together in such a manner as to form, of themselves, a structure. That is to say, the structure of the poem and the structure of reality which it mirrors are one: they are a field." William Carlos Williams, *Introduction to The Wedge*, 1944

Exercise 1a asks you to develop a drawing that features the process of iteration, a concept essential to design that we will explore in various ways throughout the semester.

Iteration = Repetition of an operation, repeated application of a strategy devised to provide a closer approximation of an anticipated function that a series of successively closer approximations may obtain.

Exercise 1a asks you to find an object, and develop a series of rules governing your method(s) for utilizing your found object, paint, & paper to illustrate a compositional strategy, and the function of your drawing.

The intent of this exercise is to allow a "way in" for each of you, regardless of your prior experiences in design. This exercise will also begin to establish a common set of graphic & verbal vocabularies that we will use throughout the semester, in a variety of contexts.

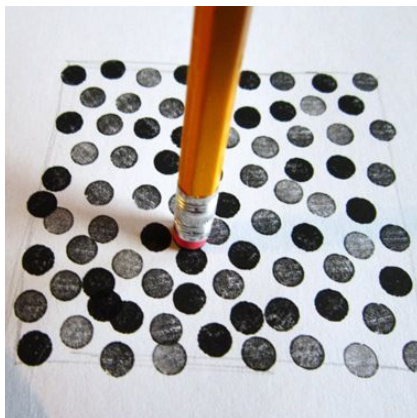
Rule Based Drawings consider how your drawing acts to divide the space of the drawing paper; how lines, marks, &/or imprints interact with one another; how the parts affect the whole; &, how each successive rule interacts with each & all of your previous rules.

Examples of Compositional Strategies or Drawing Functions

Pattern: repeated elements, such as lines, shapes, colors, or textures, that create visual rhythm and interest. Patterns can be regular, with identical elements repeating, or irregular, where the repetition is varied but still noticeable. Patterns can achieve effects like adding depth, guiding the viewer's eye, creating a sense of unity, or even to disrupt expectations and generate a feeling of surprise or psychological engagement.

Movement: motion is occurring, has just occurred, or is about to occur by using visual cues like dynamic lines, contrasting colors, repetition of elements, and careful composition to guide the viewer's eye and create a sense of dynamism, action, or the passage of time within the artwork.

Rhythm: is the visual pattern created by repeated shapes, elements, colors, and movements. It is used to create a sense of flow and connection within a work of drawing, as well as draw attention to certain areas of the composition. Rhythm can be achieved through repetition and variation, contrast, gradation and echo.



Exercises 1a: *Found Object Pattern Drawing*

Examples of Compositional Strategies or Drawing Functions (cont.)

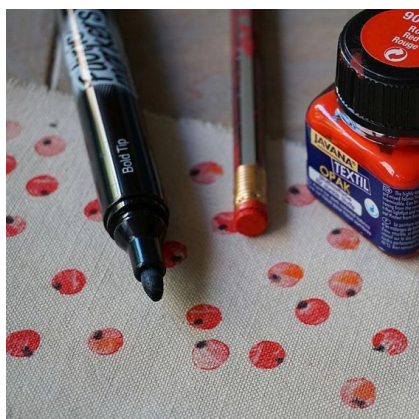
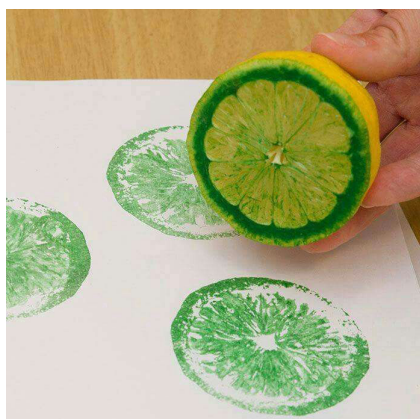
Focus: or focal point is a specific spot, area, or element that catches the viewer's attention. It's the part of an artwork that stands out from the rest, either due to its color, size, shape, or a combination of these traits. It's usually the first place that the viewer's eye is drawn to when they look at a piece of art.

Contrast: the deliberate use of visual differences between elements like light and dark, color temperature, texture, or shape to create visual interest and direct the viewer's eye.

Hierarchy: the deliberate arrangement of elements to establish an order of importance, guiding the viewer's eye from the most significant to less important secondary and tertiary elements. Manipulating visual elements like size, color, contrast, value, and spatial arrangement to direct attention and communicate meaning.

Exercises 1a Schedule

- 09.03.25 (w)** **Presentation:** Class Introduction + Exercise 1a & 1b: *Found Object & Modified Found Object Pattern Drawings*
Assignment: Study precedents/references and select one or more precedents that will inspire your work. At our next class, tell us about your precedent author & their work(s). Analyze which rules/procedures are behind the "drawing(s)" you've selected as relevant precedents and start to develop a series of rules and/or a compositional strategy for your drawing. Find and bring to class an object for pattern drawing/painting. Select a paint color and make a test of applying paint to your found object then transferring the paint to paper.
- 09.08.25 (m)** **Presentation:** *Color Theory: The Objective Use of Color in Design*
Assignment: Make a first drawing based on your rules and compositional strategy on a (19" x 24") sheet of the provided paper.
- 09.10.25 (w)** **Assignment:** Make a second drawing on a second (19" x 24") sheet of the provided paper, modifying your rules, or keeping the same rules and modifying your implementation of the rules, or using your found object drawing/painting tool in a different manner, or with a different color, and/or combination of colors.



Exercises 1b: *Modified Found Object(s) Pattern Drawing*

"All material has its own history built into it. There is no such thing as 'better' material.' It's just as unnatural for people to use oil paint as it is to use anything else. An artist manufactures his material out of his own existence – his own ignorance, familiarity or confidence." Barbara Rose, *An Interview with Robert Rauschenberg*, NY, Vintage, 1987, p.58

"I began using found objects. I had all this wood lying around and I began to move it around, I began to compose.." Louise Nevelson

"I started to work and thought what happens if you take these geometries [of industrial, utilitarian things] and make them work in such a way that they start to have an emotional quality." Tony Cragg, #59 Magazine

"Haec autem ita fieri debent, ut habeatur ratio firmitas, utilitas, venustatis. (Now these should be so carried out that account is taken of strength, utility, grace.)" Marcus Vitruvius, *De architectura*, c. 25 B.C., 1.iii.ii

Exercise 1b asks you to find an object or objects and modify the object or objects in such a way as to allow you to craft a drawing/painting utilizing a set of rules and a compositional strategy. The rules you develop, your compositional strategy, and your use of your modified found object(s), paint(s), and paper will be used to reveal the structure, function, and beauty of your drawing.

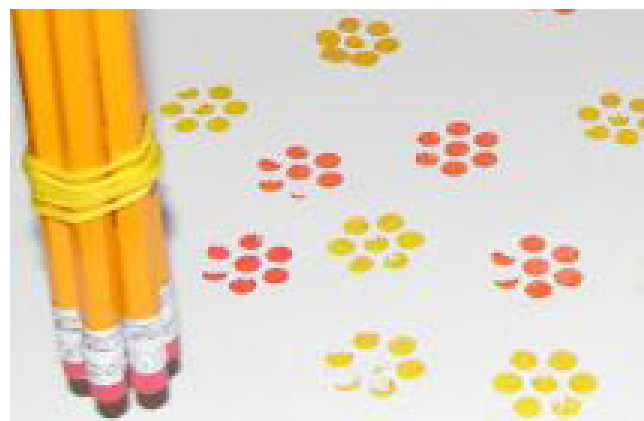
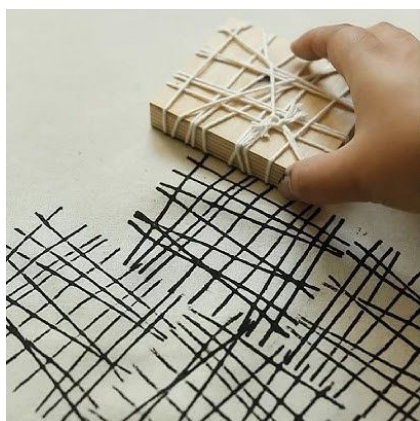
Examples of Compositional Strategies or Drawing Functions

Balance: involves the strategic arrangement of visual elements to create a sense of stability and harmony, or conversely, tension and energy, by distributing visual weight across the artwork. Balance describes the way in which visual elements are arranged along with texture, color to achieve visual balance through both symmetrical and asymmetrical arrangements of these elements.

Imbalance: as a compositional strategy, imbalance creates visual tension and movement, drawing the viewer's eye to specific areas and disrupting expectations of harmony. While traditional art often prized symmetrical compositions for their sense of order and stability, modern and contemporary artists use imbalance to provoke emotion, challenge perceptions, and achieve a more dynamic effect. It is important to distinguish intentional imbalance from asymmetrical balance. While asymmetrical balance uses different-looking elements to achieve a state of visual equilibrium, intentional imbalance purposefully creates a sense of unease or instability.

Gradation: might be defined as the gradual transition from one element to another. Artists use this technique to create a smooth, step-by-step progression of visual properties, such as color, value, size, or texture, to guide the viewer's eye and evoke specific aesthetic or emotional effects. By gradating the value and intensity of colors, artists can create the illusion of three-dimensional form on a two-dimensional surface, i.e. darker lines/colors tend to appear closer while lighter lines/colors tend to appear farther away or recede.

Harmony: uses similar or related elements like repeating shapes, colors, textures, or lines to create unity and a sense of visual cohesion within a piece. Artists achieve harmony through consistent use of color schemes (like analogous or monochromatic palettes), repeated shapes or patterns, and balanced arrangements, though some contrast can be introduced to prevent monotony and maintain interest.



Exercises 1b: *Modified Found Object(s) Pattern Drawing*

Examples of Compositional Strategies or Drawing Functions (cont.)

Dissonance: is a compositional strategy used to create tension, conflict, and instability by arranging discordant or clashing elements. Borrowed from music theory, where it describes unresolved or jarring notes, dissonance in visual art creates a felt tension that forces the viewer to confront their expectations and engage more deeply with the work. Rather than being a mistake, purposeful dissonance is used to subvert harmony, provoke thought, and elicit strong emotional or intellectual responses.

Proportion: refers to the size relationship between different elements within a composition, serving as a strategy to achieve realism, visual harmony, or emotional impact. Proportion is used to guide the viewer's eye, suggest movement, and/or convey mood through exaggeration. By carefully arranging elements based on relative sizes, you can purposely create a balanced, unified, and aesthetically pleasing work.

Scale: is a compositional strategy that refers to the relative size of objects within an artwork or the artwork itself compared to the viewer. Scale can be manipulated by enlarging or shrinking elements (distorted scale), making significant figures larger to show importance (hierarchical scale), or by juxtaposing elements of different sizes to emphasize depth or introduce unexpected effects. This deliberate manipulation of size has the potential to make an artwork more dynamic, engaging, believable, or unbelievable.

Exercises 1b Schedule

- 09.15.25 (m)** **Presentation:** Marcus Vitruvius, *De architectura*, and the Concepts of Structure, Function, & Beauty
Assignment: Study precedents/references and select one or more that will inspire your work. At our next class, tell us about your precedent author & their work(s). Analyze which rules/procedures are behind the “drawing(s)” you’ve selected as relevant precedents and start to develop a series of rules and compositional strategy for your drawing/painting. Find and bring to class a modified object, modifiable object for pattern drawing. Select a paint color, or paint colors, and make a test of applying paint to your modified found object then transferring the paint to paper.
- 09.17.25 (w)** **Assignment:** Make a first drawing/painting based on your rules and compositional strategy on a (19” x 24”) sheet of the provided paper.
- 09.22.25 (m)** **Assignment:** Make a second drawing /painting on a second (19” x 24”) sheet of the provided paper, modifying your rules, or keeping the same rules and modifying your implementation of the rules, or using your found object drawing tool in a different manner, or with a different color, and/or combination of colors.



Exercise 2a: Cut & Fold (Direct Modeling)

"The third approach, centered on the idea of permeability, involves seeking out and responding to the special conditions of the chosen site. In so doing it should prove possible to discover a basis for formal organization, to relate the construction process to the immediate locality, to choose an appropriate scale and relevant dimensions. Such an approach can encompass opposites and allow contradictions, but it permits no apathetic indifference. A dimensional module can be chosen which is small enough to respond to the landscape, yet large enough to coordinate the various interventions. The permeable approach remains open to the influence of local history and geography, their development, and the tendencies they seem to suggest. At best it takes root in such considerations, becoming a natural process, almost biology. Ideally it should be able to absorb and take over quite fearlessly any kind of system, tool or calculation. It can even be open to industrial methods and their autonomous processes, taking these as incidental elements in the mosaic of its subjective scheme." Lucien Kroll, *An Architecture of Complexity*, MIT Press, Cambridge, Ma., 1987, p. 9

"We must now see our urban society as a dynamic field of interrelated forces. It is a set of mutually independent variables in a rapidly expanding infinite series. Any order introduced within the pattern of forces contributes to a state of dynamic equilibrium - an equilibrium which will change in character as time passes." Fumihiko Maki, *Investigations in Collective Form*, A Special Publication The School of Architecture Washington University, June 1964

On a sheet of 19" x 24" paper organize, compose, reveal & cut a field of geometric constructions. Your field of geometric constructions should be set up by a structure or set of rules that establishes a relationship between the geometry of your field, the geometric constructions that result from your cuts and folds, and the sheet of paper that your constructions occupy. Make a distinction between the geometry you are drawing to set up the field and the geometry used to define and describe your 3-dimensional field of cuts and folds.

Exercise 2a Schedule

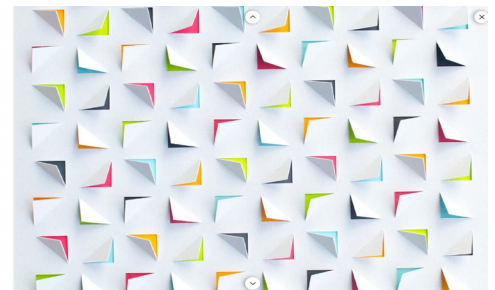
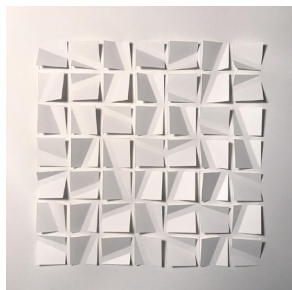
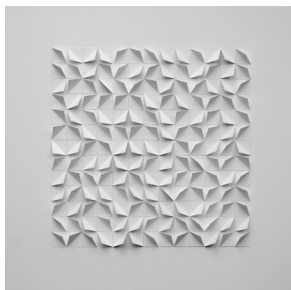
Progress in studio is a process. Work in the classroom and between classes is cumulative. Instructors and Teaching Assistants will review your work during studio providing you with feedback which you will incorporate into a revised or final version of your project for the next class. Iteration is a key condition of effective design. Make, critique, repeat, as many times as possible for best results.

09.24.25 (w) **Presentation:** Exercise 2 Presentation, Shop Safety, Laser Cutting, 2.5D, Rhino Install & Tutorial (line, arc, circle, rectangle, trim, extend, array, polar array, OSnap), Hand Cutting Demonstration. Hand cutting demonstration.
Assignment: By hand, draw and use a utility knife to test out potential shapes and patterns you can make through cutting and folding. Once you have established your 'toolkit' create a set of rules to describe the process for drawing, cutting, and folding a field of geometric constructions. Using Rhino, draw the lines that represent your cuts and prepare your laser cut file. Remember your file will be cut upside down in order to avoid burn marks. Use Red for cuts and Dashed Cyan lines for folds.

09.29.25 (m) **Assignment:** Using 19" x 24" paper, laser cut & fold a first iteration of your field of geometric constructions.

10.01.25 (w) **Assignment:** During class refine your concept & draw a second iteration of your field of geometric constructions. Between Wednesday's class and Monday's class, using a sheet of 19" x 24" paper, laser cut & fold a second iteration of your field of geometric constructions.

10.06.25 (m) **Presentation:** GIF Tutorial, 2d Photography Tutorial
Assignment: Assemble your project presentation on Google Slides including images of your 2 Direct Modeling field of geometric constructions cut & fold iterations, and 2 GIFs that show the before & after cutting and folding of your field of geometric constructions.



Exercise 2b: Cut & Fold (Parametric Modeling)

"Many tools are indispensable for my work, from a utility knife to parametric-modeling software, like Digital Project. But it's important not to confuse the tool for the content, as some designers under 30 do." Elizabeth Diller, Wall Street Journal, *Architect Elizabeth Diller's Tech Essentials*, February 14, 2014

"It's all about architecture as communication. It comes nearly for free with these tools because they have a more rigorous action, reaction or cause and effect logic which make things nature like, and like a natural environment, these artificial environments then become eminently ordered. For us, order seeking perceptive creatures, more legible..." Patrik Schumacher, Arch Daily, *Patrik Schumacher on Parametric Design and the Early Days of Zaha Hadid Architects*, July 04, 2019

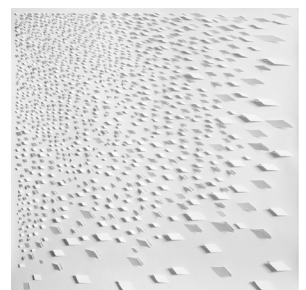
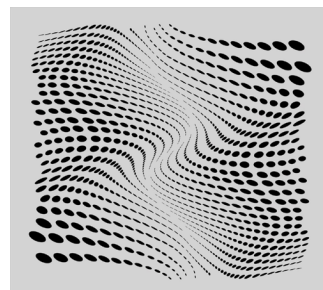
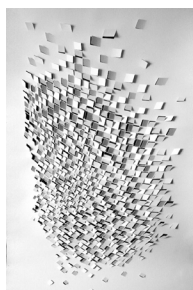
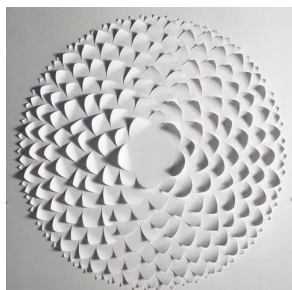
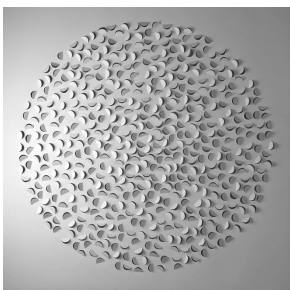
"Forget about the way it looks...Think about how it behaves." Neri Oxman, Interview Magazine, April 24, 2009 (The context of this quote is Neri Oxman's emphasis on behavior over surface aesthetics in design, prioritizing form that performs—designs that respond, adapt, and function intelligibly, especially at the intersection of nature, computation, and material science. Neri Oxman was inspired by biomimicry, and designs that can "breathe and sweat and think and grow and change," as opposed to static structures, its behavioral intelligence, how it acts or responds, rather than its static appearance.)

On a sheet of 19" x 24" paper organize, compose, reveal & cut a field of geometric constructions. Your field of geometric constructions should be set up by a structure or set of rules that establishes a relationship between the geometry of your field, the geometric constructions that result from your cuts and folds, and the sheet of paper that your constructions occupy. Make a distinction between the geometry you are drawing to set up the field and the geometry used to define and describe your 3-dimensional field of cuts and folds.

Exercise 2b Schedule

Progress in studio is a process. Work in the classroom and between classes is cumulative. Instructors and Teaching Assistants will review your work during studio providing you with feedback which you will incorporate into a revised or final version of your project for the next class. Iteration is a key condition of effective design. Make, critique, repeat, as many times as possible for best results.

- 10.08.25 (w)** **Presentation:** Exercise 2b Presentation, Grasshopper Tutorial
Assignment: Create a set of rules to describe the process for drawing, cutting, and folding a field of geometric constructions. Using Rhino + Grasshopper, draw the lines that represent your cuts and prepare your laser cut file. Remember your file will be cut upside down in order to avoid burn marks. Use Red for cuts and Dashed Cyan lines for folds.
- 10.15.25 (w)** **Assignment:** Using 19" x 24" paper, laser cut & fold a first iteration of your field of geometric constructions.
- 10.20.25 (m)** **Assignment:** During class refine your concept & draw a second iteration of your field of geometric constructions. Between Monday's class and Wednesday's class, using a sheet of 19" x 24" paper, laser cut & fold a second iteration of your field of geometric constructions.
- 10.22.25 (w)** **Assignment:** Assemble your project presentation on Google Slides including images of your 2 Direct Modeling field of geometric constructions cut & fold iterations, 2 Parametric Modeling field of geometric constructions cut & fold iterations and 4 GIFs that show the before & after cutting and folding of your field of geometric constructions.



Exercises 3i & 3g: *Folding Function*

"The visionary starts with a clean sheet of paper, and re-imagines the world. The tweaker inherits things as they are, and has to push and pull them toward some more nearly perfect solution. That is not a lesser task." Malcolm Gladwell, *The Tweaker*, The New Yorker, November 11, 2011

"The danger is that Gladwell's article will likely be misread in executive suites and boardrooms as confirming the wrong-headed idea that innovation should be cheap, easy and incremental and, no matter what, should not involve any serious invention. That is a recipe for near-term gain and long-term doom and, unfortunately, buttresses the misguided course being taken by more and more companies." Chunka Mui, *Innovators Beware: The Danger of Viewing Steve Jobs as a 'Tweaker'*, Forbes, November 15, 2011

Folding Function: Does the World Really Need Another Functional Object?

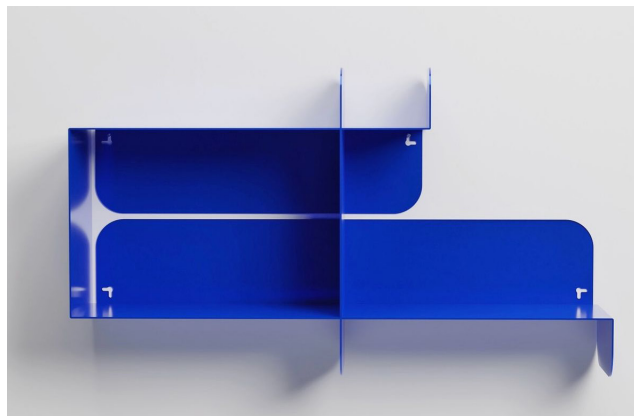
Does the world really need another functional object? How is our process different if we set out to design with a noun in mind vs. a verb, i.e., "I would like to design and fabricate a desk organizer" is very different than "I would like to re-imagine how I interact with the functional (& non-functional) objects in my everyday student dormitory life."

Vessels for holding and storing were invented thousands of years ago but that hasn't stopped nearly every generation since from evolving storage from one design to another via an ever changing assortment of materials, tools, and technologies. The history of functional object design is filled with inventors and tweekers. This semester *4.021 How to Design* asks you to choose a path. Would you like to be an inventor or a tweaker? Initially we will study the histories of functional object inventors and tweekers to better understand the various processes used in the past to arrive at an invented or tweaked solution in the present. We will then use our investigations and acquired knowledge to forge our own path and evolve or invent the next generation of functional objects capable of reordering the activities of our everyday lives, improving our everyday lives, or perhaps even changing the way we live.

Building upon the skills, techniques, and experiences you acquired working through and completing exercises 1a, 1b, 2a, & 2b, Exercise 3i asks you to individually design and fabricate function using a single sheet of metal of a given dimension, geometrically guided fabrication instructions, and kinetic folding as a technique to transform a plane into a volume with a particular function of your choosing.

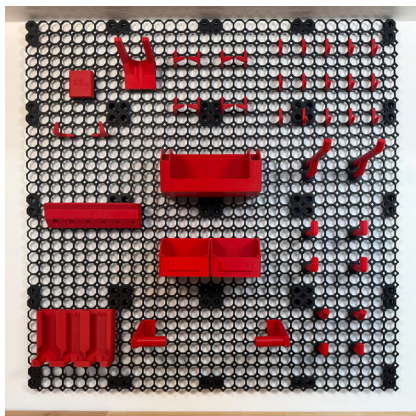
Exercise 3g asks you to, as a small group, devise a perforated field into which a variety of containers, hangers, and supports can be inserted so as to create a modular, ever evolving, functional and visual composition that tweaks or invents the next generation of functional objects capable of reordering the activities of our everyday lives, improving our everyday lives, or perhaps even changing the way we live.

Working at full scale with function offers students the opportunity to experience in a single exercise through sketches, physical models, digital models, full-scale mock-ups and completed prototypes, the traditional design sequence of schematic design, design development, presentation drawings, fabrication drawings, fabrication, use, and analysis.



Exercises 3i & 3g: *Folding Function*

- 10.27.25 (m)** **Presentation:** *Functional Object Design a History of Tweaking & Invention*
Assignment: Read Malcolm Gladwell “*The Tweaker*” Identify a design problem or opportunity in your dorm room, apartment, or everyday life that’s an opportunity for tweaking or invention. Prepare (min. of) 3 sketches and/or diagrams, describing your proposed tweaks and/or inventions & your group’s proposed tweaks and/or inventions.
- 10.29.25 (w)** **Presentation:** *Metal Laser Cutting + Folding Logic*
Assignment: (a) Draw in Rhino one of the folding patterns presented/distributed in class (b) Refine both your individual and group concepts – narrow down to 1 concept and draw it clearly (by hand/sketch)
- 11.03.25 (m)** **Presentation:** *Metal Laser Cutting Demonstration*
Assignment: Refine both your concept and your group’s concept – narrow down to 1 concept and draw it clearly (by hand/sketch) Concepts should be about: (a) The function of the proposed object in relation to its context/the design problem its trying to solve/improve (b) Fabrication process – i.e., how it might be made from a single sheet of metal folded in such a way as to have structural integrity, perform its given function, and be graceful.
- 11.05.25 (w)** **Assignment:** Individually draw your concept in Rhino and prepare your drawing for cutting on the laser. Using a piece of the supplied cardboard, make a test cut of your concept.
- 11.10.25 (m)** **Assignment:** As a group draw your concept in Rhino and prepare your drawing for cutting on the laser. Using a piece of the supplied cardboard, make a test cut of your concept.
- 11.12.25 (w)** **Assignment:** Modify both your individual concept and your group’s concept and/or laser cut prototype based on the success (or failure) of your initial full-scale mock-up.
- 11.17.25 (m)** **Presentation:** *Design Project 3d Photography*
Assignment: Modify both your individual and your group concepts, diagrams, sketches, Rhino drawings, and/or laser cut prototypes based on the feedback you received during the previous class.
- 11.19.25 (w)** **Assignment:** Desk Critiques
- 11.24.25 (m)** **Assignment:** Desk Critiques & final testing of Rhino file for metal laser cutter using cardboard for mock-up/test.
- 11.26.25 (w)** **Assignment:** Desk Critiques & prepare final preparations of Rhino file for metal laser cutter.
- 12.01.25 (m)** **Assignment:** Metal Laser Cutting & Powder Coating
- 12.03.25 (w)** **Assignment:** Metal Laser Cutting & Powder Coating
- 12.08.25 (m)** **Assignment:** Metal Laser Cutting & Powder Coating
- 12.10.25 (w)** **Assignment:** Final-project presentation using provided Google template including: Concept diagram, vector drawing of 2d sheet & 3d folded functional volume, precedents/concept/context, & full scale physical models in metal.



The Fine Print:

Absence Policy

Attendance for the full duration of each class is mandatory. The studio is an exceptional learning environment that requires your physical presence as well as your intellectual presence. You are allowed 3 excused absences for the semester. An excused absence is defined as one that was discussed with & approved by the instructor at least 24 hours prior to the absence, or a family or medical emergency that is confirmed by your physician or a dean in Student Support Services. Absences beyond the three allotted will result in a decrease in your final grade. If you miss six or more studio classes, you will be asked to drop the subject or receive a failing grade.

Evaluation Criteria, Completion Requirements & Grading

Evaluation Criteria and Grading: The following criteria will be used for the evaluation of student's work, both in terms of progress & final grading. (01) Concept: How clearly is the student articulating their conceptual intentions? (02) Translation of Concept: How well is the student using their concept to develop a design response to given problems? (03) Representation Appropriateness: How well matched is the student's choice of representational means to their intentions? (04) Representation Quality: How accomplished are students with drawing, modeling, and/or digital representation? To what degree do student's representations convey what they ought to? (05) Oral Presentation Skills: How clearly are students presenting their ideas orally, whether at their desk, in class discussions, or to a more formal jury? (06) Participation in Discussions: How actively & how constructively are students involved in class discussions, both formally & informally? (07) Response to Criticism: How do students effectively take advantage of criticism from instructors, classmates & outside jurors? (08) Auto-Critical Skills: To what extent are students able to critique their own work? (09) Attendance – see above.

A: Excellent - Project surpasses expectations in terms of inventiveness, appropriateness, verbal and visual ability, conceptual rigor, craft, and personal development. Student pursues concepts and techniques above and beyond what is discussed in class.

B: Above Average - Project is thorough, well researched, diligently pursued, and successfully completed. Student pursues ideas and suggestions presented in class and puts in effort to resolve required projects and demonstrates potential for excellence.

C: Average - Project meets the minimum requirements. Suggestions made in class are not pursued with dedication or rigor. Project is incomplete in one or more areas.

D: Poor - Project is incomplete. Basic skills including graphic skills, model-making skills, verbal clarity or logic of presentation are not level-appropriate. Student does not demonstrate the required design skill and knowledge base.

F: Failure - Project is unresolved. Minimum objectives are not met. Performance is not acceptable. This grade will be assigned when you have excessive unexcused absences.

Studio Culture

Work in the studio will build sequentially. Therefore, your commitment to continual development on a daily basis is of paramount importance. It is important that you take advantage of the studio environment. Magnification of your development as a designer is made possible by the collective nature of the class. Group reviews are collective for a reason. Each of you has something to gain from your peers. Since studio is a place for all, it necessitates the careful attention to the needs of everyone in it. Please see your instructors if there are any problems that you are unable to resolve on your own.

Academic Integrity/Honesty

MIT students are here because of their demonstrated intellectual ability and because of their potential to make a significant contribution to human thought and knowledge. At MIT, students will be given unusual opportunities to do research and undertake scholarship that will advance knowledge in different fields of study. Students will also face many challenges. It is important for MIT students to become familiar with the Institute's policies regarding academic integrity, which is available at <https://handbook.mit.edu/academic/>

Medical

If you are on a Medical Hold due to attesting to potential Covid symptoms, or have tested positive and must isolate, then please contact your instructors so we can make sure you have access to course materials and we can discuss how we address the missed work. In anticipation of students being ill this semester we have already decided that we will provide the following types of academic assistance. You can also contact Student Support Services for additional Assistance <https://studentlife.mit.edu/s3>